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Bowen et al.

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(54) **USER-SELECTABLE FORCE CONVERSION APPARATUS AND METHOD**

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(52) **U.S. Cl.**
USPC **267/158**; 482/142; 482/130; 267/229

(58) **Field of Classification Search**

USPC 267/37.3, 158, 160, 229; 482/110, 130, 482/142

See application file for complete search history.

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(57) **ABSTRACT**

A user-selectable force conversion apparatus includes a first and a second connecting member that are pivotally connected to each other between a sliding member and a fixed member. The apparatus also includes a leaf spring holder for removably retaining one or more leaf springs and loading the second connecting member with a substantially linear force response of the leaf springs. A user may change the combination of leaf springs and/or vary a length ratio for the first and second connecting members and thereby change the force response of the apparatus. Movement of the sliding member by the mechanical input may convert the substantially linear force response of the leaf springs to a user-selected force response for the mechanical input. A corresponding method is also disclosed.

18 Claims, 6 Drawing Sheets

